Microsoft Windows 10:
Time to Move to Virtual Desktops and Cisco HyperFlex Systems

Simple

Scalable

Fast

Flexible

Microsoft Windows 10 is driving new requirements

You need to start planning your transition to Microsoft Windows 10 now. If you haven't tried virtual desktop infrastructure (VDI), now is the time. VDI simplifies and accelerates desktop deployments enabling your IT staff to deliver and update desktops in an efficient and coherent manner. Rather than installing and configuring Windows 10 on each physical device, IT can build a Windows 10 image that contains everything a user, or group of users, needs. When you migrate, you essentially swap that image for an updated image. If anything goes wrong, you put the old image back. In addition, patching becomes must simpler because IT can easily test patches before putting them into production.

Windows 10 is driving greater graphics requirements. Increasing numbers of business applications are making use of graphics acceleration, and your employees are using more graphics-intensive applications such as YouTube and social media. Even if the user experience you are delivering today is sufficient, you may find that the next Microsoft update greatly degrades your user experience. Powerful graphic processing units (GPUs) are no longer optional–they are essential.

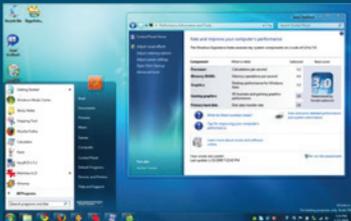## Deliver excellence with Cisco HyperFlex systems with NVIDIA GRID and GPUs

- Uncompromising user experience
- Simplicity for your staff
- Easy scalability
- More flexibility
- Superior performance

Increasing graphics demands

Operating systems have become more graphics intensive over the years, as highlighted by the increasing complexity in Microsoft Windows.

Microsoft Windows 95

Microsoft Windows 7

Microsoft Windows 10

Screen shots courtesy of NVIDIA

And if you already have VDI deployed, it's time to update that infrastructure to a GPU-enhanced environment. Cisco HyperFlex™ systems with M5 nodes and NVIDIA Tesla M10 GPUs with NVIDIA GRID are the answer. This solution lets you support up to 64 users per node with a 1-GB profile, and 128 users per node with a 512-MB profile, providing exceptional simplicity, scalability, speed, and flexibility.

Cisco HyperFlex Systems: Excellent for Microsoft Windows 10 and VDI

Cisco HyperFlex systems, powered by the latest Intel® Xeon® Scalable processors, deliver a new generation of more flexible, more scalable, enterprise-class hyperconverged solutions. We deliver a complete solution based on a next-generation data platform—one that smoothly integrates into the data center that you have today. Our solution is faster to deploy, simpler to manage, easier to scale, and ready to provide a unified pool of resources to power your user's desktops as your business needs dictate.

Simple

You can deploy virtual desktops in an hour. Your cluster ships with the hypervisor and data platform preinstalled and ready to launch through the installation wizard. Your entire virtual desktop environment can be managed through a single interface based on business policies. These

management capabilities enable you to install and operate your Cisco HyperFlex system with high-level management tools that support operations across both your hyperconverged and your traditional infrastructure.

Scalable

Scaling is fast and simple. The system automatically discovers new hardware when it is installed. Then adding it to the cluster takes only a few mouse clicks. If you need more data storage, simply add a data node to the cluster. However, often you don't need more storage, but you do need more computing and graphics power. If this is your situation, you can add a Cisco UCS C240 M5 Rack Server as a computing-only node with either one or two GPUs in the cluster. You gain the power without all the costs and unneeded storage. With Cisco HyperFlex systems, you get scalability and the capability to adjust the ratio of CPU and GPU resources to storage resources as with no other solution. And with NVIDIA's virtual GPU management and monitoring capabilities, you can create, deploy, and support this environment, at a large scale, with end-to-end monitoring and insight. These features simplify infrastructure management and ultimately lower your total cost of ownership (TCO).

Flexible

Our solution gives you choice in the way that you deliver virtual desktops. You can start as small as a 3-node cluster with up to six NVIDIA Tesla M10 GPUs with support for a few hundred users,

Virtual desktops simplify Microsoft Windows 10

- Faster to deploy
- Easier to manage
- Easier to configure
- Easier to patch and upgrade
- More secure

Learn more

- Cisco HyperFlex Systems
- Cisco Validated Designs for VDI
- NVIDIA Tesla M10 GPUs

and then scale to support several thousand users as you require, one node at a time. And the solution supports both VMware Horizon and Citrix XenDesktop virtual desktop solutions.

Faster

Your users' Windows 10 virtual desktops will render faster with NVIDIA Tesla M10 GPUs to power them. The base configuration supports up to 128 knowledge-worker users. And you can have even more nongraphics users on this configuration as well. You control the GPU profile: that is, who gets how much of the GPU power. With NVIDIA GRID, not only do your users get better performance from CPU offloading, but you will also be able to support more users per server.

The Cisco solution

Our solution (Figure 1) includes:

- Cisco HyperFlex HX 240c M5 Nodes
- Cisco UCS C240 M5 Rack Server computing-only node
- NVIDIA Tesla M10 GPUs with NVIDIA GRID software
- VMware vSphere hypervisor
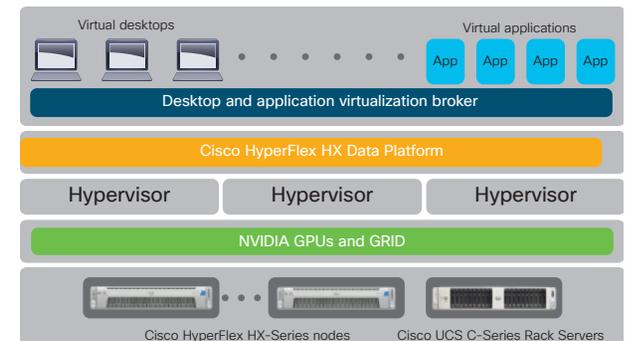- Desktop and application virtualization broker: VMware Horizon or Citrix XenDesktop

Figure 1 The Cisco solution is simple and flexible

Cisco HyperFlex systems with NVIDIA GRID for Microsoft Windows 10

We deliver the power you need to give your users an uncompromised experience and the flexibility to tailor a solution to your needs and budget. Delivering virtual desktops on Cisco HyperFlex systems makes your job easier while also enabling you to provide excellent support to your users now and into the future. It's time to plan your transition to Windows 10. Cisco HyperFlex systems with NVIDIA GRID and VDI is your solution.